



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/700,646 | 11/15/2000 | Lars Andersson | 9435-021 | 7654 |

7590 08/21/2003
Pennie & Edmonds
1155 Avenue of the Americas
New York, NY 20006

EXAMINER

YANG, CLARA I

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2635

DATE MAILED: 08/21/2003

21

Please find below and/or attached an Office communication concerning this application or proceeding.

}

3

Office Action Summary

Application No.

09/700,646

Applicant(s)

ANDERSSON, LARS

Examiner

Clara Yang

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12, 14 and 16 is/are rejected.
- 7) ☒ Claim(s) 13, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Per 37 CFR 1.83(a), drawings in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a labeled representation (e.g., a labeled rectangular box).
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: memory 19 (see page 3, line 16). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

Art Unit: 2635

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

6. The disclosure is objected to because of the following informalities:

- ♦ Page 5, line 23: The applicant teaches that charge pump capacitor 3'' can be replaced by battery 41. However, in Fig. 4, charge pump drive stage 23' is replaced by battery 41.
- ♦ Page 6, line 1: The applicant teaches that charge pump drive stage 23' can connect batteries 5 and 41 in series or parallel. However, charge pump drive stage 23' is replaced by battery 41 as illustrated in Fig. 4.

Appropriate correction is required.

Allowable Subject Matter

7. Claims 13, 15, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2635

The following is a statement of reasons for the indication of allowable subject matter:

- ◆ Claim 13: The prior art of record fails to teach or suggest an electronic price label (EPL) having a charge pump that comprises a second power supply in addition to the first power supply for displaying information.
- ◆ Claims 15 and 17: The prior art of record fails to teach or suggest an EPL having a control means that selectively connects a charge pump to a transmitter capacitor of an infrared (IR) transmitter means only when the control means determines that it is likely that the EPL will need to transmit a response, thus supplying power from the charge pump to the transmitter capacitor.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 7 - 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "said receiver means" in the last two lines of the claim.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7 - 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,729,695 (Ahlm et al.) in view of Everett.

Referring to Claims 7 - 12, 14, and 16 Ahlm teaches an electronic label comprising: (a) a solar cell or power supply means (see Col. 3, lines 11 and 47 - 49); (b) receiver means (see Col. 2, lines 34 - 39); (c) an infrared (IR) light emitting diode (LED) (see Fig. 6 and Col. 6, line 50); (d) a transistor T or switching means for the LED (see Fig. 6); (e) capacitor battery C or transmitter capacitor that provides considerably greater power than normally provided by the solar cell (see Col. 6, lines 51 - 55 and 65 - 57); and (f) logical control circuitry for connecting and disconnecting diode D from capacitor battery C via transistor T (see Col. 5, lines 59 - 65 and Col. 6, lines 50 - 53). Ahlm's electronic label only transmits an acknowledgement when a received signal contains an identification (ID) code or address that corresponds to the one in the electronic label's memory (see Col. 5, lines 55 - 65). Because Ahlm also imparts that the electronic label's logical circuit will be set to a third mode or repeater mode when the received ID code or address is incorrect (see Col. 6, lines 1 - 1 - 18), it is understood that each electronic label's logical circuit is able to determine when transmission is likely to be required. Ahlm's electronic label, however, lacks a charge pump that is connected to the capacitor battery C for supplying power to capacitor battery C.

In an analogous art, Everett teaches a passive tag 14, as shown in Fig. 1, comprising: (a) reading device 12 and coil 34 for supplying power to tag 14 (see Col. 1, lines 64 - 67; Col. 2, lines 1 - 3; and Col. 4, lines 21 - 24); (b) receiving circuit 36 or receiver means; (c) application specific integrated circuit (ASIC) 38 having a transmit drive or transmitter (see Col. 3, lines 17 - 19); (d) switching means 50; (e) voltage doubler 42 and energy storage capacitor 44 or charge pump means for producing a current at a voltage which is greater than the voltage provided by coil 34 (see Col. 4, lines 35 - 36); and (f) power up circuit 48 or control means for selectively connecting voltage doubler 42 and energy storage capacitor 44 to ASIC 38 (see Col. 4, lines 41 - 45).

Art Unit: 2635

Everett's tag only transmits a reply when it is within reading device 12's communication range and receives sufficient energy from reading device 12 (see Col. 1, lines 64 - 67 and Col. 2, lines 1 - 9). When coil 34 receives energy generated by reading device 12, voltage doubler 42 increases the voltage from coil 34, which is then stored by capacitor 44 (see Col. 4, lines 35 - 39). Power up circuit 48 then detects the voltage in capacitor 44, connects capacitor 44 to ASIC 38 by closing switch 50 when the detected voltage exceeds 5 volts, and disconnects capacitor 44 when capacitor 44 drops to approximately 3 volts, thereby ensuring that circuits 38 remain powered until tag 14 has completed its transmission of the coded information (see Col. 4, lines 39 - 48). Here it is understood that the discharge time of capacitor 44 is a predetermined time period (see Col. 5, lines 30 - 50).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the electronic label of Ahlm as taught by Everett because connecting a charge pump to the transmitter capacitor and switching means only when transmission is likely, thereby ensuring that the transmitter is properly activated, and maintaining the connection only during data transmission decrease power consumption of the solar cell while powering the LED in a highly efficient manner.

❧

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/700,646

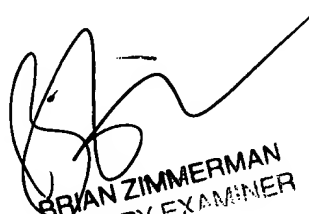
Page 7

Art Unit: 2635

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

CY

19 August 2003


BRIAN ZIMMERMAN
PRIMARY EXAMINER